



MRC/CSO Social and Public Health Sciences Unit Consultation Response

Title of consultation
The impact of COVID-19 on education and children's services
Name of the consulting body
UK Parliament Education Committee
Link to consultation
https://committees.parliament.uk/work/202/the-impact-of-covid19-on-education-and-childrens-services/
Why did the MRC/CSO Social and Public Health Sciences Unit contribute to this consultation?
The MRC/CSO Social and Public Health Sciences Unit at the University of Glasgow conducts high quality research that has a real impact on health and wellbeing, and on reducing health inequalities – both at home and across the globe. We have a particular focus on developing and using cutting-edge methods to understand how social, behavioural, economic, political and environmental factors influence health. We work with decision makers, practitioners and the public to identify interventions and policies that can have an effective and sustained impact on health and wellbeing, particularly among the most disadvantaged. During the COVID-19 pandemic we have undertaken a number of new pieces of research to understand the effects of the pandemic on social and health inequalities.
Our consultation response
Our response focuses on the following item in the Inquiry's terms of reference: <i>the effect on disadvantaged groups, including the Department's approach to free school meals and the long-term impact on the most vulnerable groups (such as pupils with special educational needs and disabilities and children in need)</i> . We draw on research that we are undertaking to understand the effects of school closures on educational inequalities, and their implications for health inequalities in future. Below we summarise the key points we wish to make, and the set out in more detail the background, methods and preliminary findings of our research.
Summary
School closures are one of the most widespread policy responses to the COVID-19 pandemic, affecting over 1.5 billion learners in 190 countries, including 15 million in the UK.
Surveys conducted since schools were closed in the UK suggest wide differences in the nature and level of support for learning provided by private and state schools, and between schools in the public sector. These differences may be exacerbated by inequalities in the ability of children from more or less affluent families to make use of the support provided.
Research on previous epidemics and modelling studies undertaken to inform the UK Government's response to the COVID19 pandemic suggest that school closures make only a small contribution to controlling the spread of infection. Their impact on children's education, health and wellbeing is therefore an important consideration in deciding how long schools

should remain closed, what support for learning should be provided while they are closed, and what additional support may be necessary once they reopen.

The effects of school closures on educational inequalities were a focus of research and policy interest long before the pandemic. Overall, the evidence that closures widen inequalities (often referred to as 'summer learning loss') is contradictory, but there have been few studies in the UK.

We have carried out a scoping review of the international evidence of the effects of school closures on education and health inequalities. We have also undertaken new analysis of the Millennium Cohort Survey (MCS) of children born in 2000-2, using information collected when they were aged 7, 11 and 14.

We looked at whether differences in cognitive ability and mental wellbeing among children from advantaged and disadvantaged backgrounds widen, narrow or stay the same between the beginning and end of the school summer holidays and whether the effects differ across the three age groups.

Our scoping review found little evidence that inequalities in academic achievement or in social, cognitive or emotional development between children from more or less disadvantaged backgrounds widen over the school holidays.

In our analysis of the MCS we found large differences between children from more or less disadvantaged backgrounds in mental wellbeing and reading ability, but we did not find a consistent pattern of widening differences between more and less disadvantaged children when we compared responses in the months before and after the school summer holidays.

These are preliminary findings, but we do not expect the picture to change once we have completed all of our analyses. They suggest that in normal circumstances, school closures do not lead to significant additional educational disadvantage.

The school closures during the COVID19 pandemic may have a larger effect, for example because they are longer or because inequalities in support for learning have been more pronounced during the pandemic-related closures than they are during summer holidays in general. This should be an important focus of future research and monitoring.

Background

Closures of schools and other education settings are one of the most widespread policy responses to the COVID-19 pandemic, affecting nearly 1.6 billion learners in 190 countries at their peak in April, including 15 million in the UK.¹ Since the beginning of the lockdown and the closure of schools in the UK, a number of surveys have been conducted of the level of support for home learning that schools are providing, and how much time children are spending in educational activities. These surveys suggest wide differences in the nature and level of support for learning provided by private and state schools, and between schools in the public sector.^{2 3} These differences may be exacerbated by inequalities in the ability of children from more or less affluent families to make use of the support provided, for example because children from poorer families are less likely to have access to a computer, a good internet connection, or a quiet place to study,⁴ or because their families have been disproportionately affected by the economic effects of the pandemic.⁵

Research on previous epidemics and modelling studies undertaken to inform the UK Government's response to the COVID19 pandemic suggest that school closures make only a small contribution to controlling the spread of infection. A systematic review published in early April found that school closures had contributed little to the control of previous SARS

epidemics.⁶ Modelling by members of the UK Government's Scientific Advisory Group on emergencies suggests that closing schools has only a marginal effect alongside other social distancing interventions.^{7 8}

If the public health benefits of school closures are small, their impact on children's education, health and wellbeing should be an important consideration in deciding how long schools should remain closed, what support for learning should be provided while they are closed, and what additional support may be necessary once they reopen.

The effects of school closures (e.g. for summer holidays) on educational inequalities are a longstanding focus of research and policy interest. An influential US study from the 1980s suggested that more than two thirds of the total attainment gap between children from 'high poverty' schools and other schools arose during the summer holidays. More recently the results of this study, and other early studies of 'summer learning loss' have been questioned.⁹ A reanalysis of the data from the original study, and subsequent studies using more modern methods of assessment, have failed to replicate the finding of widening attainment gaps.¹⁰ A rapid evidence review by the Education Endowment Foundation, conducted shortly after the COVID19 closures began,¹¹ acknowledged the questions raised over the previous studies but concluded from a synthesis of the evidence from nine studies of primary school children that the attainment gap between disadvantaged children and their peers could widen by 36% if the closures lasted until September.

Overall, the evidence that closures widen inequalities (often referred to as 'summer learning loss') is contradictory and its applicability is questionable as few if any of the previous studies have drawn on data gathered in the UK. We conducted a new analysis of data on a representative sample of UK children at three different ages and set this in the context of a scoping review of the international literature on the effects of school closures on socio-economic differences in attainment and social, cognitive and emotional development.

Study methods

- (1) Scoping review: we searched five bibliographic databases (EconLit, ERIC, Medline, Psychinfo and SocINDEX) to identify relevant studies published after 1994. We included studies of the impact of school holidays on pupils aged 4-18 years, that examined differences in academic achievement, social, cognitive or emotional development, or behaviour. Studies could be conducted anywhere in the world, so long as they were published in English. Our initial searches identified 3053 papers, of which 2913 were excluded on the basis of their title or abstract. The remaining 140 were assessed in detail based on the full text, and a sample were assessed by two researchers to ensure we were applying the rules consistently. We extracted data from 28 papers that met all the inclusion criteria.
- (2) Analysis of Millennium Cohort Study: the UK Millennium Cohort Study (MCS)¹² is a nationally representative, longitudinal survey of children born in the UK, September 2000-January 2002. The survey uses a stratified clustered sampling design to oversample children living in Wales, Scotland and Northern Ireland, disadvantaged areas and, in England, those with high proportions of ethnic minority groups. In our analysis we used weights to correct for the oversampling so that the results reflect the composition of the UK population. We used data gathered when the children were aged 7, 11 and 14. At each of these 'sweeps' 11-13,000 children were included, with interviews are spread over a year or more. We were therefore able to compare results from children who were assessed in the months before and after the summer holidays, after correcting for the varying composition of the sample in the different months.

To measure social and emotional wellbeing we used the total difficulties score from the Strengths and Difficulties Questionnaire, a 25 item measure completed by the mother, applying standard cutoffs to distinguish 'normal' from 'borderline-abnormal' scores. To measure cognitive ability we focused on reading scores, as these have been collected at each of the three sweeps of the survey that we were using. Each sweep uses different measure of reading ability, but all children within each sweep are tested in the same way, so that we can compare scores collected before and after the summer holidays. For the analyses reported here we used age-standardised scores.¹³

We used mother's education as our main measure of the children's socio-economic circumstances, distinguishing children whose mothers had high (a university degree), moderate (A-levels, GCSE grades A-C, a diploma or equivalent) or low (GCSE grades D-G, equivalent or none) levels of qualifications. We fitted regression models with interaction terms to identify whether inequalities in our outcomes widened between the months before and the months after the holidays.

Results

(1) Scoping review: of the 28 included studies, 20 were from the US, three from Canada, two from New Zealand and three from European countries. Length of school holidays in the included studies varied from six to 11 weeks. Outcomes included reading, maths and science scores – we found no studies reporting changes in emotional development, behaviour, etc. Most of the studies defined children according to socio-economic status, but some used other measures such as ethnicity or disability.

Most of the included studies either find no change in inequalities before and after school summer holidays or report inconsistent findings (e.g. changes that do not consistently favour either more or less disadvantaged children). Some studies that report differential changes also report caveats suggesting that the findings may suffer from methodological weaknesses. For none of the outcomes or ways of defining advantage or disadvantage is there a consistent picture of widening inequalities over the school summer holidays.

(2) Millennium Cohort Study: the main findings are summarised in the table.

	Does outcome change over school holidays?	Does the change vary by mother's education level?
Reading, age 7	Worsening	No
Reading, age 11	No change	No
Reading, age 14	Small improvement	No
SDQ, age 7	Worsening	No
SDQ age 11	No change	No
SDQ age 14	Worsening	Lower education groups fare worse

Changes in reading scores over the school holidays vary according to the age of the child but we find no evidence of widening inequalities according to mother's education level. SDQ scores worsen over the school holidays for children aged 7 and 14, but not for children aged 11. For children aged 14, the deterioration is greater for children whose mothers have less education – the only case where we find evidence of a widening gap in outcomes for more and less disadvantaged children. The overall differences between children from more or less disadvantaged backgrounds are much larger than the changes over the holidays, or any widening of the gap over the holidays. We repeated the analyses using income, divided into fifths, and an index of neighbourhood deprivation to classify children as more or less

advantaged, with similar results. We also varied the definition of pre and post summer holidays to include all non-holiday months or just the 2-3 months before the holidays, again with similar results.

Interpretation

These are preliminary findings, but we do not expect the picture to change once we have completed all of our analyses. The results of our analyses of UK children are consistent with the mixed picture emerging from the international literature. They suggest that in normal circumstances, school closures do not lead to significant additional educational disadvantage. The school closures during the COVID19 pandemic may have a larger effect, because they last longer, because inequalities in support for learning have been more pronounced during the pandemic-related closures than they are during summer holidays in general, or because disadvantaged children tend to live in households more severely affected by the social and economic disruption of the pandemic. This should be an important focus of future research and monitoring.

When was the response submitted?

21 July 2020

Find out more about our research in this area

<https://www.gla.ac.uk/researchinstitutes/healthwellbeing/research/mrccsocialandpublichealthsciencesunit/aboutus/covid19/>

Who to contact about this response

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